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Audit of Asset Accounting

November 2017

Office of Internal Audit and Evaluation

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Her Majesty the Queen of Canada, represented by
The Chief Executive Officer of Parks Canada, 2017
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**List of Key Acronyms**

AAM: Asset Accounting Manual
AM: Asset Manager
ARI: Automotive Resources International
CADC: Crown Assets Disposal Corporation
CB: Comptrollership Branch
CFO: Chief Financial Officer
CoA: Chart of Accounts
FAM: Finance & Administration Manager
FU: Field Unit
FY: Fiscal Year
IO: Internal Order
PCA: Parks Canada Agency
PM: Project Manager
R&M: Repair and maintenance
TB: Treasury Board
TCA: Tangible Capital Asset
UL: Useful Life

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EXECUTIVE SUMMARY

Introduction

The Parks Canada Agency (PCA) has one of the largest asset portfolios in the federal government, comprised of 17,703 tangible capital assets (TCAs)¹ with a net book value of \$2.3B and a replacement value of \$17.5B². The Agency's asset holdings are diverse, ranging from modern buildings to dams and weirs built over a century ago, highways, bridges and wastewater facilities. These assets are divided into two classes: cultural assets, which are resources or human-made works and which have been determined to have historic value, and contemporary assets which have no historic value.

Starting in 2014, the Government of Canada has announced a series of investments in the Agency³ designed to improve the condition and/or the service potential of the asset base. As a result the Agency is in the process of undertaking, or planning to undertake, 975⁴ capital asset projects between 2015-16 and 2019-20 with an average investment over the period of \$751.7 million per year. This has significantly increased the volume of capital asset accounting transactions and increases the risk that improper accounting could lead to a material misstatement in the Agency year-end financial statements.

The objective of the audit was to determine whether controls and processes related to accounting for tangible capital assets were in compliance with Treasury Board (TB) accounting standards, policies and directives in effect at March 31, 2016.

The audit methodology included an examination of the relevant documentation, interviews and file review.

This audit conforms to Internal Auditing Standards for the Government of Canada, as supported by the results of the quality assurance and improvement program.

Conclusion

We are of the opinion that the framework for asset accounting (i.e., policy, directives, standards, monitoring mechanism) in the Agency conforms to TB and the Public Service Accounting Board Standards. Although the general framework is in place, errors in the recognition and treatment of various TCA transactions were detected in our sample of 100 assets during the course of the audit. Collectively these errors represent approximately \$3.1M (approximately \$1.8M related to capitalised expenditures and \$1.3M related to amortization for the 2015-16 fiscal year). Errors resulted from: capitalization of repair and maintenance (R&M) expenditures (accounting for 58% of total errors); delays in recording assets as in-service; unperformed write-offs of assets no longer in service; and over-estimating the useful life of betterments to existing assets. We also noted an issue with documenting details of disposal decisions.

¹ As of March 31, 2016. Source PCA's financial information management system.

² PCA's 2016 Asset Report Card (unaudited)

³ In funds approved in Budget 2014, 2015 (i.e., the Federal Infrastructure Investment Program) and Budget 2016

⁴ Parks Canada Agency Investment Plan, p. 31



Recommendations

There are four recommendations addressed to the Chief Financial Officer (CFO):

1. The CFO should, in consultation with the relevant officials in the asset management community, develop a plan and process to increase mutual understanding of what constitutes capital and R&M expenditures, and defining if and under what circumstances, or at what levels, R&M expenditures can be included in the capitalized costs of a project.
2. The CFO should establish controls that ensure the required authorizations are obtained and managed as required by policies and procedures for asset disposals.
3. The CFO should:
 - a) determine the impacts on the financial statements of using the original asset's useful life rather than the estimated useful life of each betterment when calculating amortization expense; and
 - b) implement a new approach to identify and record the estimated useful lives of betterments.
4. The CFO should, in consultation with the appropriate officials responsible for investment planning and project delivery, issue direction clarifying:
 - a) when assets should be considered to be in-service; and
 - b) procedures for informing finance personnel in a timely manner when an asset is operational.



1. INTRODUCTION

To fulfill its mandate, the Agency manages a diverse portfolio of 17,703⁵ tangible capital assets in 216 locations including:

- Heritage assets, such as fortifications and historic buildings, primarily in national historic sites;
- Contemporary visitor experience assets, such as campgrounds, multi-use trails, parkways, park roads and visitor centers;
- Highway assets including sections of the Trans-Canada and provincial highways totaling 1,050 kilometers as well as major structures such as bridges and snow sheds;
- Waterway assets consisting of 625 kilometers of waterways including bridges, dams and locks located in nine historic canals.

Starting in 2014, the Government of Canada announced a series of investments in the Agency⁶ designed to improve the condition and/or the service potential of the asset base. As a result the Agency is in the process of undertaking, or planning to undertake, 975⁷ capital asset projects between 2015-16 and 2019-20 with an average investment of \$751.7 million per year. This has significantly increased the volume of capital asset accounting transactions and increased the risk that improper accounting could lead to a material misstatement in the Agency year-end financial statements.

1.1 KEY CONCEPTS IN ASSET ACCOUNTING

Asset accounting involves transactions related to the acquisition of new assets, replacements or betterments of components of existing assets, as well as disposal of assets when they are no longer of use. Key concepts in asset accounting include the following:

Tangible Capital Assets (TCA): are assets with a useful life extending beyond one fiscal year, are intended to be used on a continuing basis (i.e., not acquired for resale); and have a value of \$10K or more.

Useful Life (UL): refers to the length of time an asset is expected to be in-service. For simplicity all assets within a certain class or type are considered to have the same useful life (e.g., all buildings have the same useful life). Different classes of assets have different useful lives (e.g., a road is expected to be in operation for a longer period than a building which in turn has a longer useful life than a vehicle).

Capital vs R&M Expenditures: Capital expenditures are those used to acquire assets, or improve the service potential or useful life of existing assets. R&M expenditures are those incurred to maintain the service potential and/or useful life of existing assets (i.e., they do not add to the life or service potential of an asset). Distinguishing capital from R&M expenditures is key to asset accounting.

Amortization (Depreciation): In accounting, capital expenditures for assets are treated as long-term prepayments in advance of use of the asset. Essentially, an investment in a given year is not recorded as an in-year expense. Rather, the expenses are systematically allocated and recorded on

⁵ As of March 31, 2016. Source PCA's financial information management system

⁶ In funds approved in Budget 2014, 2015 (i.e., the Federal Infrastructure Investment Program) and Budget 2016

⁷ Parks Canada Agency Investment Plan, p. 31



a monthly basis over the life of the asset. These expenditures are referred to as amortization or depreciation.

Book Value: The original cost for the acquisition or construction of a capital asset is recorded as the book value of the asset. Over time the book value of the asset is reduced according to its amortization schedule. At year end, the original value minus any accumulated amortization is referred to as the net book value. At the end of an asset's useful life the net book value of the asset is zero.

Materiality: In accounting, materiality refers to the principle that trivial matters are to be disregarded, and all important matters are to be disclosed. Items that are large enough to matter are material items. Decisions on materiality are a matter of judgment and involve both quantitative and qualitative considerations. In general, quantitative materiality is defined as 0.5% to 2.0% of total expenses, unless there is a clear metric which is more relevant. This threshold is applied to the aggregate of all errors and misstatements, not on an individual item basis. In the Agency's case, \$14M is considered a material amount.

1.2 KEY STAKEHOLDERS IN ASSET ACCOUNTING

Key stakeholders in the asset accounting process include:

- The finance function within the Comptrollership Branch (CB) of the Agency, led by the Chief Financial Officer, develops Agency policy, direction, and guidance with respect to accounting matters in general and asset accounting in particular. The branch prepares the Agency's annual financial statements and Public Accounts submissions. It has an oversight role in ensuring the accuracy, completeness and appropriateness of the asset accounting treatment of transactions related to tangible capital assets. The branch provides advice to others in the Agency on the accounting treatment for complex asset transactions. It also performs annual reviews of selected accounting transactions across all field units and directs the physical asset verification exercise.
- Finance and Administration Managers (FAMs), at the field level across the Agency, are responsible for decisions regarding the appropriate accounting treatment and processing of all revenue and expenditure transactions including those related to TCAs.
- Project managers (PM), either in field units or national office, are responsible for managing investments leading to capital expenditures. Asset managers (AM), in field units, focus on asset life cycle management. Both project and asset managers can provide critical information supporting asset accounting including details on the nature of expenditures (e.g., whether it is a capital or R&M expenditure; when an asset is finished construction and is considered operational).

2 LEGISLATIVE AND POLICY FRAMEWORK

The key policy governing how the Agency is to account for its TCAs is TB's Accounting Standard 3.1 – Capital Assets. The Agency has incorporated the underlying TB principles in the following Agency documents:

- PCA Asset Accounting Manual (AAM) - the primary source of direction for Agency asset accounting staff;



- PCA's Guideline on Common Financial Management Business Process 4.1 – Manage Other Capital Assets;
- PCA's Procedures for Disposal of Surplus Fleet Vehicles, Vessels and Equipment.

Other applicable legislation and accounting policies and directives used as a basis for this report are cited in Appendix B.

3 OBJECTIVES AND SCOPE

This audit was undertaken as part of the Parks Canada's approved Multi-year Internal Audit Plan (2016-17 to 2018-19).

The objective of the audit was to verify the Agency's compliance with TB's Accounting Standard 3.1 – Capital Assets, the Public Sector Accounting Hand Book Section 3150 – Tangible Capital Assets, and other relevant TB policies and directives (see Appendix B for complete list).

The audit period was April 1, 2015 to March 31, 2016 (fiscal year 2015-16). We conducted this national audit between September 2016 and June 2017.

3.1 SCOPE LIMITATION

The scope of the audit is limited by the availability of relevant information for some of the audit criteria. In particular we noted that invoices provided by Public Services and Procurement Canada (PSPC), when doing work on behalf of the Agency, do not identify expenditures in sufficient detail to verify if all costs incurred under these contracts were eligible for capitalization. This issue was previously identified in our Audit of Governance of the FII Program at Parks Canada (January 26, 2017). In response to a recommendation from that audit, management agreed to resolve this issue by December 31, 2017. Other information related to PSPC managed projects (i.e., Special Services Agreements; project charters, Progress Claims, Interim and Final Certificates of Completion) was available and used where relevant.

4 METHODOLOGY

Selecting a complete fiscal year (FY) enabled us to reconcile all recorded TCA transactions to the Agency's March 31, 2016 financial statements.

The procedures used in the audit were varied depending on criteria being tested. To focus the audit, we relied principally on a core sample of 100 assets.

- To extract this sample, we first identified the 10 field units (FUs) with the most capital spending during 2015-16. These units accounted for 62.7%, or \$287 million, of the total recorded Agency capital spending of \$458 million in FY 2015-16. Within these units, we restricted our sampling to 10 of the 14 different classes of assets (i.e., excluded land which is not amortized, as well as equipment, informatics, and presentation assets which have relatively low materiality).
- From this restricted population we selected the 100 assets. The sample included assets brought into service during 2015-16 (n=35) divided between newly acquired assets (n=10) and assets subject to significant replacements or betterments. It also includes assets (n=65) that were considered to be under construction at the end of the fiscal year. These sampling ratios reflect



the proportion of spending in each category in the population. Expenditures for these 100 assets represent 47% of the total recorded capital spending for FY 2015-16.

- The relevance of this sample of assets differs depending on the particular audit criteria being examined. For example, only in-service assets have accumulated amortization during the year, so tests related to amortization criteria are generally only relevant for this portion of the sample.
- The basic sample of 100 assets was used to select additional samples. For example, we sampled procurement documents and invoices associated with the 100 assets in order to conduct various audit tests.
- In a few cases, we did not rely on the sample of 100 assets but instead examined: 1) either the whole population of relevant records in the financial system (e.g., testing if capitalized expenditures for the year all exceeded a \$10K threshold) and 2) samples of transactions that would not have been identified by other procedures (e.g., R&M expenditures; capital leases).
- Details of particular samples used in assessing various criteria are noted throughout this report.

In performing the audit we also:

- Visited the four FUs with the highest capital spending in FY 2015-16 in order to review supporting documentation and interviewed key stakeholders (mostly FAMs, AMs, and PMs) in the asset accounting process.
- Obtained supporting documentation and conducted phone interviews with individuals from the remaining six top capital spending FUs; and
- Visited the Cornwall Accounting Operations Centre to review documentation stored at that office (as opposed to the FU offices).

5 STATEMENT OF ASSURANCE

This audit conforms to the Internal Auditing Standards for the Government of Canada, as supported by the results of the quality assurance and improvement program.

Brian Evans

Chief Audit and Evaluation Executive – Parks Canada Agency

6 AUDIT OPINION

We are of the opinion that the framework for asset accounting in the Agency (i.e., policy, directives, standards, monitoring mechanism) conforms to TB and the Public Service Accounting Board Standards. Although the general framework is in place, errors in the recognition and treatment of various TCA transactions were detected during the course of the audit. Collectively these errors represent approximately \$3.1M (approximately \$1.8M related to expenditures and \$1.3M related to amortization for the FY 2015-16). Errors resulted from capitalization of R&M expenditures (accounting for 58% of total errors), delays in recording assets as in-service, unperformed write offs of assets no longer in service, and over-estimating the useful life of betterments to existing assets. We also noted an issue with documenting details of disposal decisions.



7 OBSERVATIONS AND RECOMMENDATIONS

7.1 GENERAL AUTHORIZATION, CODING AND REPORTING CONTROLS

In order to assess the risk that a failure to completely and accurately record capital asset activity and the related amortization may cause misstated financial reports, we examined compliance with several controls reviewed below:

A) Authorization of Acquisitions and Expenditures

As the first step in the TCA accounting process, we expected initiation of relevant procurement activities and payments of associated expenditures to be properly authorized (i.e., have a valid section 34 signature).

- With respect to authorization of procurement, we selected a sample of 118 contractual arrangements. The contractual arrangements included those between the Agency and third party suppliers and agreements between the Agency and PSPC. In 4 cases, sufficient evidence was not available for us to assess whether the appropriate manager signed the agreement. In the remaining 114 cases, the appropriate official had approved the agreement.
- With respect to authorization of expenditures, we selected 133 invoices from vendors dealing directly with the Agency, and 70 invoices from PSPC for work done on Agency projects. We could not assess 12 invoices where the signatures were illegible in nine cases, and in three other cases the invoice could not be matched to the project. Of the remaining 191 invoices, 171 (90%) were appropriately approved. Of the 20 invoices that did not have an approval signature by a delegated manager, 18 were from PSPC. In all 20 cases, the invoices we were provided with lacked a signature by the appropriate Parks Canada official.

B) Eligibility of Capital Expenditures

- TB and Agency accounting standards define the types of expenditures associated with a project that are eligible for capitalization. We expected that vendor invoices associated with capital projects would include only these types of expenditures. To test whether this was the case, we selected a sample of 133 invoices associated with 64 Agency managed projects⁸. Two of these invoices were not made available to the audit team. Of the remaining 131 invoices, 120 (92%) contained expenditures eligible for capitalization, while the remaining 11 were for R&M work (see section 7.2.A for more information on this issue).

C) Coding of Expenditures to Appropriate General Ledger Accounts

- We expected that costs shown on invoices would be coded to the appropriate general ledger accounts as described in the Agency Chart of Accounts (CoA). This matters because some general ledger accounts or classes of accounts are reserved for capital expenditures and others for R&M expenditures.
- Decisions on which expenditures align with general ledger accounts require less detailed information than required to determine if an expenditure should be capitalized (i.e., previous criteria). Given this, we identified 195 invoices with sufficient detail for general ledger coding including invoices from PSPC. We found that 151 of the 195 (77%) invoiced costs were coded

⁸ Additional invoices were available from PSPC but as previously noted these do not provide sufficient details on the nature of the expenditures.



appropriately in the system.

- There are two types of errors. First, the majority of the errors we detected involved using an incorrect general ledger code but one that was in the same category or family of codes. This kind of error impacts on the detail of in-year general ledger expenditures but does not affect the presentation of asset information (e.g., book values, amortization costs, etc.) in financial statements. The second type of error applied to instances where capital expenditures were coded to general ledger accounts associated with R&M. The Agency applies a procedure at year end (the reallocation of capital expenditures) that includes the detection and correction of these errors.

D) Capitalization of Expenditures under \$10,000

- The Agency recognizes a capital asset when its cost is \$10,000 or more⁹. To test the Agency's treatment of this, we obtained a complete list of total recorded capital expenditures by asset for the FY 2015-16 (i.e., includes both in-service assets and those under construction).
- There were 1,462 assets with recorded capital expenditures for 2015-16. With the exception of five asset records (valued at \$23K), all asset expenditures exceeded \$10K.

E) Conformance With Reporting Standards

- We expected that the Agency's financial statements would conform to the presentation and disclosure standard for TCAs in PSAB 3150 and TBAS 1.2 – Department and Agency Financial Statements¹⁰. We concluded that the financial statements conformed to these standards.

Conclusion

We conclude that with the exception of the application of the delegated signing authorities for PSPC invoices, some low-impact coding issues and the capitalization of a small number of expenditures that did not meet the \$10,000 threshold, the Agency has met the requirements regarding these general controls regarding the processing, recording and reporting of asset accounting transactions.

7.2 CLASSIFICATION OF CAPITAL VS REPAIR & MAINTENANCE EXPENDITURES

There are a variety of standards, directives, manuals and other guidance to assist in the determination of what is a capital expenditure and what is an expenditure on R&M of an asset (e.g., TB Accounting Standard 3.1 – Capital Assets; Public Sector Accounting Board Standard 3150; Agency's Asset Accounting Manual).

In this section, we reviewed the extent to which the two kinds of costs were treated in the financial system. We also examined whether other required adjustments to base asset values were made when recording capital expenditures related to replacements and betterments.

A) Validity of Recorded Capital Expenditures

⁹Parks Canada Asset Accounting Manual, section 2.4.

¹⁰ Rescinded April 1, 2017, but in effect at the time the financial statements were prepared.



- Expenditures should be capitalized in the case of:
 - 1 Acquisition of new assets when the costs exceed \$10K and the useful life of the asset is more than one year;
 - 2 Betterments to existing assets when the work extends the service potential and/or the useful life of the asset; and
 - 3 Replacement of significant components of existing assets that cost more than \$10K.

We found:

- The Agency conducted mandatory mid and end-of-year financial review processes, in part, to detect and correct miscoding of expenditures. FAMs are sent pre-populated spreadsheets listing capital projects in their FUs and asked to verify: 1) if the capital expenditures recorded against the project contain any R&M costs that should be removed, and 2) to identify any additional capital costs that may not have been linked to the appropriate capital project in the financial system.¹¹
- To validate whether projects as a whole represented capital or R&M type expenditures we conducted a detailed review of project documents describing the nature of the work for the 100 assets in our sample. In some cases, we supplemented the document review with interviews with project managers. In our sample:
 - The project work on 28 of the 35 in-service assets was correctly classified as capital. In three of the remaining cases we were unable to obtain sufficient information to make a judgement on the nature of the expenditures. In the remaining four cases we concluded the projects represented R&M work and the expenditures should not have been capitalized.
 - With respect to 65 assets under construction, we concluded that 61 of these projects were correctly treated as capital while the remaining 4 represented R&M projects which should not have been capitalized.
- The eight projects noted above which involved the improper capitalization of R&M expenditures had a total value of \$1,764,126. Details of the various types of miscoding are presented in Appendix C.

B) Validity of Recorded R&M Expenditures

- Expenditures should be treated as R&M when the work they are associated to do not affect an asset's service potential or its useful life. R&M costs should be expensed in the year in which they occur.
- We reviewed a non-random sample (taking into consideration the description, value and location of the expenditure) of the supporting documentation for 25 expenditures coded against internal orders associated with non-capital projects to determine if they were expensed during FY 2015-16. We obtained details on 19 of these 25 transactions.

¹¹ We were told that all 38 business units returned the spreadsheet in 2015-16 as required, Comptrollership Branch considered only 28 of these to be complete and that follow-up requests for clarification or additional information did not produce satisfactory responses.



- We found that the 19 invoices we obtained all represented valid R&M charges (i.e., they were compliant with requirements).

C) R&M Expenditures Erroneously Coded as Capital

- Despite controls in place to detect miscoding of capital and R&M expenses, errors in coding still occur. There are several possible reasons for this situation:
 - The determination of when an expense is a capital or R&M cost is sometimes complex. The Agency's AAM provides guidance and examples on how to treat the expenses in various situations but cannot be comprehensive in all situations. FU and National Office (NO) level staff reported that significant amounts of time are spent debating how to classify some expenditures. In some cases, FUs classified a project as capital simply due to the magnitude of the project cost rather than analysing the substance of the transaction. In general, business units appear to default to treating costs as capital rather than R&M when there is uncertainty in classification. Additional guidance has been prepared by NO to help in decision making but we were told this had not been circulated to field units.¹²
 - The use of local coding rules can impact decisions on what expenditures get capitalized. For example, in two of the FUs we visited, we found that management sets thresholds based on the dollar amounts or percentage of project costs to guide decision making. If the R&M component of a capital project exceeds the threshold value, then the expenses were separated and treated accordingly. If the threshold was not exceeded, then the R&M costs were retained as part of the overall capital costs of the project. Effectively, the process sets tolerance levels for miscoding of R&M expenditures. Neither TB nor Agency direction, with respect to asset accounting, addresses whether this practice is acceptable and if so, to what extent.
 - It may be that decisions about classification of capital and R&M expenditures do not take into account all the available sources of information that could help in decision making. Some project and asset managers, as well as engineering staff, indicated being familiar with accounting differences between capital and R&M expenditures. However, we were told they were not always asked, or only asked after the fact, by FAMs for input on how to classify the costs.

D) Recording Adjustments for Betterments and Replacements

- As noted in the Agency's AAM, when assets are placed back in-service following a betterment or replacement, the associated accounting information (capital costs, useful life) are recorded as a sub-asset under the original parent asset (e.g., as a subcomponent of the original road or building). At the same time, adjustments are made to the existing values associated with the parent assets (i.e., the original value of the parent asset is reduced and the accumulated amortization for the parent asset is adjusted). The process for calculating the value of the adjustment to the parent asset is outlined in the AAM. In principle, we expected that these

¹² Asset Expenditure Definitions (updated February 2015), which was jointly prepared by Asset Management, Finance (CB) and Investment Planning.



adjustments would be made to the 14 betterments and 10 replacements included in our sample of in-service assets.

- We found that the appropriate adjustments had been made for 12 of the 14 betterments. We estimated the misstatement associated with the two non-compliant assets was \$220,000. We also found appropriate adjustments for 6 of the 10 replacements. In two instances, the relevant values have not been retired from STAR¹³ (estimated associated misstatement is \$110,000); while in two others, the original assets were not recorded in the financial system in the first place, therefore it would be impossible to adjust the relevant values. Due to the dollar value, we judged these errors to be immaterial.

Conclusion

With respect to the key issue of distinguishing capital expenditures (i.e., due to acquisitions, betterments and replacements) from R&M expenditures, all errors we found in the sample went in the direction of treating R&M expenditures as capital rather than treating true capital expenditures as R&M. There are likely multiple causes of this including the complexity of the task, use of local decision rules designed to simplify the accounting process, a tendency to default to treating costs as capital rather than R&M and processes that in some cases do not take into account all the available expertise and information sources.

We also examined the issue of whether appropriate adjustments to net book values and amortization were made in the financial system following an asset's movement from under construction to in-service. While we identified errors in this process, we concluded they were immaterial.

Recommendation 1

The CFO should, in consultation with the relevant officials in the asset management community, develop a plan and process to increase mutual understanding of what constitutes capital and R&M expenditures, and defining if and under what circumstances, or at what levels, R&M expenditures can be included in the capitalized costs of a project.

Management Response:

Agree: The CFOD, in consultation with the relevant officials in the asset management community, will develop additional guidance material to improve consistency and understanding of R&M versus betterment expenditures. The additional guidance material will be made available to staff by March 31, 2018.

Target completion date: March 31, 2018

7.3 VERIFYING THE EXISTENCE OF CAPITAL ASSETS

As part of effective control over financial reporting, it is important to periodically verify (i.e., physically count) the asset inventory to ensure the continued existence of assets, their condition for purposes of write downs, and that new additions to inventory are documented. The Agency's requirements and processes for verification of the inventory are outlined in its AAM and in common

¹³ STAR – Departmental financial management system.



business process descriptions for Asset Management. TB Policy and the PSAB standards are largely silent on how and when the verification of TCAs should occur.¹⁴

We found:

- Prior to FY 2015/16, physical asset verifications had been carried out on an ad-hoc basis. The need for a systematic verification of the asset inventory was identified by management in the Comptrollership Branch as early as FY 2014-15.
- In FY 2015-16, the Agency created a five-year schedule to verify the existence of all TCA assets. As part of the mid-year financial review process, FUs are provided with a pre-populated list of all assets from one or more categories of assets (e.g., all the bridges, or buildings, or utilities) and asked to validate if the assets are still in service, if there should be any write-downs on the assets, and if there are any missing assets from the list.
- We found the instructions for the process were clearly written and comprehensive, including how to handle situations where the physical count differed from the records in the spreadsheet and what to do when an asset was considered to be no longer in service. We reviewed examples of the completed spreadsheets and observed they contained both confirmation of assets still in-service and identification of assets that were no longer in service. We did not audit the validity of these reports.
- According to Comptrollership Branch, the scheduling of the assets to be inventoried over five years was designed to accommodate the operational requirements and capacity of the FUs. However, we heard in interviews with some FAMs that the quantity of assets to be verified in any given year can be a burden, particularly in larger FUs where there are more assets in any given category. In this situation, FAMs who oversee the verification process often rely on inputs from asset or project managers rather than conduct independent visual inspections of all the assets to confirm both their existence and if a write-down is required.¹⁵
- Given the lack of definitive policy or standards on when and how to verify the existence of TCAs (i.e., particularly fixed assets), the Agency has flexibility to modify its process if the execution proves to be burdensome. Longer timeframes to conduct a complete inventory review are acceptable, as are differing verification cycles for different classes of assets. For example, assets with shorter life cycles may warrant more frequent verification of their continued existence although this consideration has to be balanced by the fact that these assets typically represent less material amounts for the financial statements. The next section on disposal of

¹⁴ TB Policy on Management of Materiel is sometimes cited as a relevant policy authority for the TCA verification process, but the policy itself is specifically focused on "material" defined as movable assets including a broad range of goods such as equipment (e.g., office, information technology, telecommunications, scientific), furniture and furnishings, and larger goods (e.g., vehicles and ships). Inventory in this context is defined as materiel held in stock at storage facilities, including materiel that is undergoing repair or is in the supply system. A portion of the Agency TCA inventory is materiel in the sense of the policy (e.g., vehicles and equipment). However, the largest portion of the inventory consists of fixed assets (e.g., roads, buildings, bridges) which is not subject to the policy.

¹⁵ The need for visual inspection of the assets by someone other than the custodian(s) of the assets is a hallmark of asset verification for inventories of consumable and moveable assets. Its application in the context of fixed assets is less clear. Typically, visual inspection by someone independent of the custodian is done, at least in part, to reduce risks of theft, misappropriation or misuse of the assets. These risks do not normally apply to fixed assets.



assets provides an example of assets like vehicles that might benefit from more frequent verification.

Conclusion

The Agency developed and started to implement a systematic approach to verify 100% of its TCA inventory over a five-year period. The approach has led to the identification of assets that are no longer in service and confirmed the continuing operational status of other assets. At the time of the audit, it was reported that the process could prove to be burdensome in some FUs given the large number of assets to be reviewed in any given year. The Agency has flexibility in how it designs its verification processes to address potential burden imposed on FUs.

7.4 DISPOSAL OF SURPLUS ASSETS

- Requirements and procedures for disposal of assets are governed by a variety of policies and directives including the:
 - Agency's Management Business Process 4.1 – Manage Other Capital Assets, which in turn is derived from the TB Guideline on common financial processes;
 - TB Directive on Disposal of Surplus Material; and
 - Parks Canada Procedures for Disposal of Surplus Fleet Vehicles, Vessels and Equipment

To dispose of an asset, appropriate authorization must first be obtained. The disposal must follow one of the approved methods (i.e., either transfer, sale, donation or conversion to waste depending on what method ensures best value for the Agency). Disposals should be done in a timely manner following a decision on the continued need for the asset. When a disposal involves the sale of an asset, it should be processed through the Government of Canada (GC) Surplus via the Crown Assets Disposal Corporation (CADC). Relevant documentation regarding the disposal of an asset should be retained for two years.

With respect to financial transactions, the record of the asset should be retired from the inventory when it is no longer in-service as well as associated amortization, and any related costs or revenue should also be accurately reflected in the financial system.

We found:

- Staff at two of the four FUs we visited were not aware that authority to dispose of assets was defined in the Agency's Financial Delegation Instrument. Across the four FUs, we found little evidence documenting the disposal process for particular assets during the period under audit (i.e., no audit trail). As a result we could not confirm if the appropriate delegated managers approved the disposal of the assets or if the disposal was performed in a timely fashion.
- Despite this, we did find evidence that the appropriate methods of disposals were used in most cases and that when assets were sold, it was done through the CADC.
- In the four field units we visited, we identified 17 assets identified in the financial system as disposals during 2015-16. We confirmed that the assets and the accumulated amortization were properly removed from the system.
- We also obtained the Agency's recorded assets sales through the CADC for the FUs in question and found that eight assets noted as sold were not removed from the financial system (i.e., value of \$7,124). The value of this error is immaterial for purposes of financial reporting.



- Finally, we obtained a reconciliation performed by the Agency that compared records for vehicles in the financial system with records in the Automotive Resources International (ARI) system (the TB mandated company providing vehicle fleet management and eligible equipment services for the federal government). We noted 93 discrepancies for the FUs we visited that had not been resolved at the time of the audit. These included:
 - a. Vehicle or equipment noted as sold in ARI, but not deactivated in STAR (50 discrepancies);
 - b. Vehicle or equipment not found in ARI, but recorded in STAR (32 discrepancies);
 - c. Vehicle or equipment found in ARI, but not recorded in STAR (11 discrepancies).

We shared these discrepancies with the FUs we visited. Each FU initiated a follow-up process to investigate the reason for the discrepancies and correct them.

Conclusion

Parts of the disposal process are working effectively (i.e., the sale of surplus assets through the CADC; making the appropriate adjustments in the financial system when assets are identified as disposed). However, aspects of the process involving awareness of the need for appropriate delegated approval for a disposal, and the need to document and retain records of disposal actions were not functioning effectively.

Recommendation 2

The CFO should establish controls that ensure the required authorizations are obtained and managed as required by policies and procedures for asset disposals.

Management Response:

Agree: The CFOD updated the instructions for the 2017-18 mid-year capital asset review to emphasise the need to obtain the appropriate authorization and documentation for all disposals. The CFOD will include a review of disposal transactions, on a sample basis, as part of its on-going monitoring activities beginning in October 2018.

Target completion date: October 31, 2018

7.5 APPROPRIATE AMORTIZATION OF CAPITAL ASSETS

Under TB Policy and directives we expected the Agency to have determined amortization rates for various classes of assets, and to apply these rates in a consistent and reasonable manner. We also expected that the in-service date for an asset in the financial system, which triggers the start of amortization, would be as close as possible to the date an asset was declared operational.

Amortization Rates

- The Agency, as recommended by TB, calculates the amortization of its capital assets on a straight-line basis.



- The Agency also follows the TB guideline regarding the length of amortization period by class of asset, with the exception of four asset classes. In these cases, Comptrollership Branch provided a reasonable justification for the differences.
- For the 35 in-service assets in our sample, the recorded amortization in the system rate fell within the amortization periods prescribed by the TB.

Amortization of Betterments

There is a general problem with the calculation of amortization of betterments in the Agency due to how the STAR financial system automatically treats the useful life of these kinds of capital expenditures. CB explained that this problem is generic to many of the financial systems used across government and not specific to the Agency.

- The problem can be illustrated with the following example:
 - a. Each asset class has a generally defined useful life. A road, for example, has a useful life of 40 years.
 - b. When a betterment is made to an asset such as the road, it is recorded as a separate line (sub-component of the original asset) in the financial system.
 - c. In practice, the betterment is expected to increase the useful life of the whole road by an additional 15 years. However, STAR does not allow the Agency to enter the actual life span of the road (generally equal to the sum of the remaining useful life of the original asset in addition to the estimated increase in useful life). Instead, STAR automatically assigns the 40-year life span of the road class to the betterment.
 - d. Since betterments rarely lead to an extension of the useful life of an asset that is equivalent to the general life of the asset class, the effect of this is that in-year amortization expenditures are understated in any given year.
- The problem likely has significant impacts on estimates of yearly amortization costs, particularly as the amount of investment in the Agency increases over time. For example, in the 14 betterments in our sample, we found that in 11 cases the useful life automatically assigned by the system were too high leading to under-reporting of \$149,376 in amortization costs for FY 2015-16. Additional analysis of the issue, based on various assumptions is shown in Appendix D.
- Management is aware of this issue and has engaged the Department of Canadian Heritage which maintains the STAR financial system on behalf of the Agency, to develop a technical solution which allows users to modify the default settings in the system and enter more realistic useful life data for betterments. While no guidance was available to address this situation when we conducted the audit, in July 2017 new procedures were developed and communicated to the business units that describe how to adequately record useful life of betterments.
- Through its mid and end-of-year financial review process, the Agency asks management in the field to confirm the rationale for treating particular expenditures (i.e., from a prepopulated list) as betterments and to provide the real extension of the useful life in years due to the betterment. We observed that in some cases management is providing the requested estimates but did not validate the accuracy of the estimates. At the time of the audit, management in NO was not



entering the estimates into the financial system pending the development of an overall approach to addressing the problem.

- The CB also reported some high-level analysis of the problem noting that in certain cases betterments should be recorded at the useful life of the class of assets (i.e., vehicles and equipment, exhibits which tend to have shorter useful lives).
- As of the time of this report, management had not set a target date to complete the analysis of potential impacts and responses to this situation.

In-Service Dates

- Failure to declare an asset to be in-service close to the time they become operational results in artificially lowering the extent of amortization expenses for the year and lowers the total amortization reported in the financial statements. Once the “in-service” date is entered, the financial system automatically starts calculating amortization on the first day of the following month.¹⁶
- In principle, FAMs obtain in-service dates from the appropriate project manager. This date reflects the date an asset became operational.
- To identify when assets became operational for the 25 assets in our sample that were put in service in 2015-16, we obtained project completion documents and/ consulted the relevant project manager. We compared these dates to the recorded in-service dates in the financial system. For purposes of our testing we considered a gap of three months or less between these dates to be acceptable.
- We found that 21 of the assets in our sample were declared to be in-service within the three-month window we specified from the date they were operational. The remaining four assets that fell outside the three-month window (i.e., missed amortization expenses) accounted for an error of \$73,662.
- We also found that 13 of the 65 “assets under construction” were in fact completed in fall 2015. By not including these 13 as “in-service” assets for the FY 2015-2016 led to a \$762,388 understatement of the amortization.
- Inaccurate “in-service” dates can occur for several reasons including:
 - lack of clarity of when an asset should be declared to be in-service (e.g., when a component of an overall project, such as a building or campground, is ready for use, or when all the assets associated with the project are complete);
 - lack of a consistent formal process for informing various stakeholders in the process of when an asset is ready for use; and
 - lack of a definition of the authoritative source for declaring an asset in-service.

Conclusion

We found that in general the Agency used and applied appropriate amortization rates for various classes of assets consistent with TB direction. However, a potentially significant problem with the way the STAR financial system automatically calculated the useful life of betterments was

¹⁶ We verified in our sample of in-service assets that this control in the financial system was working.



identified. Management was aware of the problem and has taken steps to address it at a technical level, and was defining next steps in dealing with the problem. With respect to in-service dates for assets in the financial system, we found several errors that resulted from a lack of clarity regarding when assets should be declared to be in-service and the lack of a consistent process for informing stakeholders of the relevant dates.

Recommendation 3

The CFO should:

- a) determine the impacts on the financial statements of using the original asset's useful life rather than the estimated useful life of each betterment when calculating amortization expense; and
- b) implement a new approach to identify and record the estimated useful lives of betterments.

Management Response:

Agree:

- a) Betterments recorded as in-service prior to 2017-18: CFOD will complete its analysis of the impact on the Agency's financial statements by June 30, 2018.
- b) Betterments recorded as in-service in 2017-18: Since July 14, 2017, the financial system has been updated to allow for the amortization of new betterment assets based on expected useful life as determined by the Field Units. Guidance was provided to the finance community explaining the changes and the requirements. In July 2017, the accounting procedures and the asset accounting manual were updated accordingly.

Target completion date: June 30, 2018

Recommendation 4

The CFO should, in consultation with the appropriate officials responsible for investment planning and project delivery, issue direction clarifying:

- a) when assets should be considered to be in-service; and
- b) procedures for informing finance personnel in a timely manner when an asset is operational.

Management Response:

Agree: The CFOD, in consultation with Investment Planning and Project Delivery, will develop additional guidance material for determining the in-service date of an asset, as well as, reinforcing the importance of timely communication between asset managers, project managers, and Chiefs, Finance and Administration for determining this date. Guidance material will be made available by March 31, 2018.

Target completion date: March 31, 2018



7.6 IDENTIFICATION AND TREATMENT OF CAPITAL LEASES

The TB Guide to the Management of Real Property explains that capital leases are effectively a vehicle for financing the purchase of an asset. In a capital lease, the risks and benefits of ownership are primarily transferred to the lessee as opposed to an operating lease, wherein the lessor retains all the risks and benefits associated with real property ownership. The Guide states that capital leases must satisfy at least one of the following criteria:

1. the lease transfers ownership to the lessee by the end of the term of the lease;
 2. the lessee can purchase the real property at a price below fair market value when the lease expires;
 3. the lease term is 75% or more of the estimated economic life of the real property; or
 4. the present value of the lease payments is at least 90% of the fair market value of the real property at the start of the lease.
- According to the Agency's 2015-16 financial statements, there are ten capital leases (i.e., for commercial and office space) with a total cost of \$21,171,904 and accumulated amortization of \$7,030,065.
 - We extracted summary information from the financial system and confirmed both the existence of the leases and their reported net book value. The CB assumes responsibility for performing the analysis and recording of all TCA capital leases and related liabilities in the financial system.
 - We also reviewed the FU mid-year reports submitted to CB as part of its on-going monitoring program which requires units to report any potential capital leases. We found no evidence of additional capital leases.
 - Finally, we confirmed that the Agency's financial statements disclosed the Agency's capital lease obligations related to upcoming fiscal years, the total future minimum lease payments, imputed interest and the amount representing the balance of obligations for the leased TCAs¹⁷

Conclusion

We conclude that all capital leases have been identified, and are accurately presented and disclosed in the Agency's financial statements as at March 31, 2016.

7.7 ADJUSTMENTS AND CORRECTIONS TO TRIAL BALANCE

Adjustments to TCAs and related accounts may occur between the time the Agency's final trial balance is taken and the published financial statements are issued.

- To determine the validity of these adjustments, we reviewed the CB prepared trial balances and supporting work sheets which explained all adjustments made to finalize the Agency's financial statements. We discussed the adjustments with the CB officials responsible for preparing them. We were fully satisfied with the explanations received.

Conclusion

We conclude that for the preparation of the Agency's year-end financial statements, the necessary processes and controls are in place to ensure that all adjustments made to the historical cost and accumulated amortization of TCAs were documented and reasonable.

¹⁷ As required by PSAB PS 1000, TBAS 1.2 subsequently rescinded.



Appendix A. AUDIT PROGRAM

1. Processes and controls, to appropriately account for TCAs purchased, constructed and/or under construction (AUC).
 - 1.1. The associated relevant SAP input documents (requisition for goods/services, approved contract) for TCAs purchased, constructed or assets under construction (AUCs) should be approved (policies and procedures) and available for audit.
 - 1.2. All and only all TCA eligible capital costs should be recorded in and capitalized.
 - 1.3. All asset transactions should be coded in accordance with PCA's CoA, (classification).
 - 1.4. All assets capitalized must have a minimum cost of \$10,000.
 - 1.5. Legal title (ownership) to all TCAs should have passed to PCA as at March 31, 2016 (rights & obligations, cut-off).
 - 1.6. Assets should be presented and appropriately disclosed in PCA's Draft unaudited financial statements as at March 31, 2016.
2. Processes, and controls to appropriately account for betterments, replacements and repairs & maintenance:
 - 2.1. To be considered a TCA betterment (ASN), the cost must be at least \$10,000, AND appreciably prolong the period of usefulness of the asset OR enhance its service potential (functionality).
 - 2.1.1. Appreciably extend the asset's useful life (at least 20%).
 - 2.1.2. Enhance the existing asset's service potential (functionality).
 - 2.2. Replacement
 - 2.2.1. Replacement components should be capital in nature and cost more than \$10,000, and should be considered a significant component of the asset of which it forms a part.
 - 2.2.2. The eligible capital costs of the new replacement component should be capitalized unless the cost is considered insignificant compared to the whole asset, in which case, it should be expensed in the FY it was incurred.
 - 2.2.3. For valid replacements, the appropriate portion of the cost and accumulated amortization (when reasonably determinable), is to be removed.
 - 2.3. Repairs and Maintenance Expenditures
 - 2.3.1. R&M expenditures should not be capitalized (classification).
 - 2.3.2. Expenditures of a capital nature should not be charged to R&M accounts (classification).
3. Processes and controls to ensure that information concerning the existence (via physical count) of its TCAs is accurate and complete and that assets which no longer contribute to the provision of the Agency's goods and services.
 - 3.1. PCA should have a risk-based physical asset count Plan and Schedule to verify the existence and condition of its TCAs.
 - 3.1.1. The count procedures should provide clear direction as to how the count is to be performed and to whom the results are to be reported.
 - 3.1.2. The count procedures should provide clear direction on the action necessary should the count results portray quantity or other discrepancies.



- 3.1.3. The physical asset count should be performed by persons independent of the asset custodial/recordkeeping function.
- 3.1.4. A risk-based process is established to identify assets that no longer contribute to PCA's provision of goods & services and for which a permanent loss of value is considered to have occurred.
- 3.1.5. Impaired assets deemed to be obsolete and/or no longer in service should be written down to the net carrying value of its net realizable value.
- 4. PCA complies with TB SPDs in establishing policies, processes and controls to dispose of assets that have been declared surplus.
 - 4.1. PCA accounts for disposal of its surplus assets in accordance with TB SPDs.
 - 4.1.1. PCA must have in place a delegation instrument that clearly sets out Agency authorities & accountabilities for the disposal of surplus moveable materiel assets.
 - 4.1.2. Appropriate segregation of duties is in place.
 - 4.1.3. Surplus materiel should be disposed of as soon as possible after being identified and declared surplus.
 - 4.1.4. The method used to dispose of surplus assets complies with TB SPDs.
 - 4.1.5. Appropriate accounting transactions are recorded and appropriately coded when TCAs are sold or traded-in.
 - 4.1.6. Proceeds realized from the sale of TCAs are recorded in the appropriate accounts and in compliance with authorities.
- 5. Processes and controls to apply an appropriate amortization methodology in a rational and systematic manner, appropriate to the nature of the capital asset and its use.
 - 5.1. Amortization rates for asset classes comply with the useful life standard set by TB unless otherwise justified.
 - 5.1.1. Amortization shall be recorded monthly on the first day of the month following the month that the asset was put into service.
 - 5.1.2. The "in-service" date recorded should correspond closely with the date the asset became operational/used.
 - 5.1.3. Calculation of monthly amortization is accurate.
 - 5.2. Betterments (ASNs) are amortized over the useful life of the asset to which the improvement is made or the useful life of the betterment if significantly shorter.
 - 5.2.1. Betterment amortization shall be recorded monthly on the first day of the month following the month that the asset was put into service.
 - 5.2.2. The "in-service" date recorded for the betterment should correspond closely with the date the asset became operational/used.
 - 5.2.3. Calculation of monthly amortization for the betterment is accurate.
 - 5.3. Replacements
 - 5.3.1. For replacements, the replacement cost of the new whole asset should be amortized over the remaining useful life of the new value of the whole asset.
 - 5.3.2. Amortization of the newly capitalized whole asset shall be recorded monthly on the first day of the month following the month that the newly capitalized whole asset was put into service.



- 5.3.3. The "in-service" date recorded for the new whole asset (replacement completed) should correspond closely with the date the new whole asset became operational/used.
 - 5.3.4. Calculation of monthly amortization for the new whole asset (replacement completed) is accurate.
6. Processes and controls to ensure that capital leases are distinguished from operating leases.
- 6.1. Capital leases should be identified, recorded & appropriately accounted for & disclosed in the Agency's financial statements.
 - 6.1.1. Capital leases included in the Agency's accounts must meet the criteria necessary to qualify as a capital lease.
7. Processes and controls to ensure that adjustments, corrections or any other transactions posted to a TCA account is valid and approved.
- 7.1. Any transactions (adjustments, corrections or other) which affect the balance of a capital asset account should be supported by an approved journal voucher.
 - 7.2. All suspense and /or similar clearing accounts should be appropriately adjusted at March, 31, 2016.

**Appendix B. APPLICABLE LEGISLATIONS AND POLICIES****Laws and Regulations**

Parks Canada Agency Act
Financial Administration Act

Treasury Board Policies, Guidelines and Standards

Accounting Standard 3.1 – Capital Assets
Policy on Internal Control
Policy on Financial Management Governance
Policy Framework for Financial Management
Policy on Management of Materiel
Policy on Management of Real Property
Policy Framework for Management of Assets and Acquired Services
Directive on Delegation of Financial Authorities for Disbursements
Directive on Expenditure Initiation and Commitment Control
Directive on the Disposal of Surplus Materiel
Guideline on Departmental Chart of Accounts Line Object Codes
Guideline to Management of Materiel
Guide to Management of Moveable Heritage Assets
Guide to Management of Real Property
Guideline for the Policy on Internal Control

Canadian Public Sector Accounting Standards

Public Sector Accounting Standard 3150 –Tangible Capital Assets

PCA Policies

PCA's Guideline on Common Financial Management Business Process 4.1 – Manage Other Capital Assets
PCA Asset Accounting Directive
PCA Asset Accounting Manual
PCA Parks Canada Roadway Management Directive (July 16, 2016)
PCA Asset Management Directive
PCA Directive for the Design, Construction and Inspection of Vehicular and Pedestrian Bridges (January 2008)
PCA Recapitalization Management Process Operations Manual
PCA Chart of Accounts
PCA Matrix of Delegated Authorities

**Appendix C. EXAMPLES OF MISCODED EXPENDITURES**

As noted in the AAM, to be capitalized, an expenditure must 1) be at least \$10,000 and 2) the UL of the asset must be extended by at least 20% or the service potential must be significantly increased. While in many of the following examples, the expenditures exceed the \$10K threshold, sometimes by considerable amounts, they do not meet the other criteria;

- crack sealing on a road (the Agency defines this as a maintenance action);
- replacement of shingles, roof replacements, replacements of doors and windows, and asbestos removal where none of the work extended the useful life of the assets or their service potential;
- repair of a sink hole at a canal lock prior to beginning a major rehabilitation of the lock wall;



Appendix D. POSSIBLE EXTENT OF MISSTATEMENT OF AMORTIZATION EXPENDITURES

Context and Purpose

- In its 2015-16 financial statements, the Agency reported an opening acquisition cost value of its assets of \$4.49B and \$84.5M in amortization expenditures for the year for “in-service” TCA. During the year, a total of \$145.4M in acquisition expenditures was reported (i.e., not including acquisition costs of land which is not amortized nor expenditures associated with assets under construction).
- A portion of the acquisition costs and resulting amortization expenses is due to betterments. The current practice of assigning asset class UL values to these betterments creates errors in these estimates. Specifically, it amortizes the expenditures of a longer timeframe than is likely realistic given the nature of betterments. These serves to reduce the in-year amortization expenditures.
- There is no easy way to determine the magnitude of the error given that betterments are not clearly differentiated from replacements in the financial system and the real useful lives of betterments are not known.
- In this situation, we developed various scenarios to estimate the potential impacts of betterments on reported amortization expenditures for the 2015-16 fiscal year based on a number of assumptions. The intent is to provide order of magnitude estimates of potential impacts that could guide future decision making on the appropriate course of action regarding the problem.

Method and Assumptions

- As noted, acquisition expenditures for 2015-16 were \$145.4M. For purposes of our analysis, we removed from our calculations assets that generally have short or uncertain useful lives (i.e., equipment, leases, vehicles, presentations, informatics and other assets with UL shorter than 15 years) leaving \$123M in total acquisitions.
- We assume based on discussions with Controllershship Branch that 75% of the reported acquisition costs are for betterments¹⁸ (i.e., \$92.8M of the \$123M in acquisition costs were for betterments).
- The \$92.8M in acquisition costs is associated with a set of assets which can be identified in the financial system. Each of these has an original UL. We grouped assets into classes based on the original UL (i.e., all assets regardless of the type with a 15 UL or a 25 UL).
- For each of the UL groups we needed to determine 1) the remaining useful lives of the assets 2) the useful life of the betterments. Adding these together gives the timeframe for amortization of the associated acquisition costs.¹⁹ Dividing the acquisition costs by the timeframe gives the amount of total costs that would be expensed in a given year.
- With respect to the first requirement, remaining ULs of assets, we fixed this value to 18% of their original useful lives based on analysis of samples of assets (e.g., 18% of an asset with a 40-year life means it has 7.2 years remaining in its life).

¹⁸ CB suggested 80% of expenditures were betterments but we used a more conservative value of 75%.

¹⁹ There are some betterment situations where adding the remaining UL of the original asset and the UL of the betterment is not the right accounting treatment. For purpose of our analysis, we have ignored this complexity. Including this factor would reduce the estimates of unreported amortization in our scenarios.



- With respect to the second requirement, ULs of betterments, we tested four scenarios where betterments are assumed to represent different percentage of the assets original UL:
 1. 100% of original UL (i.e., the financial systems default)
 2. 20% of original UL (i.e., the threshold of useful life extension of the asset for the eligibility of the expenditures to capitalization);
 3. 40% of original UL (i.e., a reasonable assumption for at least some classes of assets based on interviews with subject matter experts);
 4. 60% of the original UL (i.e., an optimistic assumption of the extent that betterments in general will extend the life of an asset).
- Summing the results of these analysis across the different useful life categories leads to the results shown below.

Estimated 2015-16 Amortization Expenses Due to Betterments

Costs of Acquisitions	% increase in UL of Assets Due to Betterments			
	100% (SAP Default)	20%	40%	60%
\$92.8M	\$2.3M	\$6.0M	\$3.9M	\$2.9M

- Recall that the total amortization expense for 2015-16 was \$84.5M. This analysis suggests that \$2.3M of that amount was due to the current method of calculating the ULs of betterments (i.e., to the extent our assumptions are correct).
- The difference between estimates under the 20, 40 and 60% scenarios and the 100% default scenario represents potential misstatement of amortization expenditures for 2015-16 (e.g., we reported an estimated \$2.3M under the default system but should have reported \$3.9M under the 40% scenario for a misstatement of \$1.6M).

Assets under construction

- We can apply the same methods and assumptions to assets under construction. In this case, total acquisition costs were \$311M, of which we isolated \$227M as relevant to our analysis given the criteria noted above. The results are shown below.

Estimated Amortization Expenses Due to Betterments (if the costs had been amortized in 2015-16)

Costs of Acquisitions	% increase in UL of Assets Due to Betterments			
	100% (SAP Default)	20%	40%	60%
\$227M	\$5.6M	\$14.7M	\$9.7M	\$7.2M

- As these acquisition costs have not yet been amortized, they do not contribute to errors in the 2015-16 financial statements. However, they do serve to indicate how the materiality of potential errors will increase over time as more work on the capital investment program is completed.